

CLAIMS

1. A medium having a status information printing program recorded thereon to be run on a host computer in order for a printer to print status information, the host computer and the printer being connected for two-way communication, the medium being characterized by causing the host computer to realize:

an output initiation instruction monitor function for monitoring the output initiation instruction for the status information that the printer outputs through the two-way communication;

a status information acquisition function on the host side for acquiring status information data from the printer through the two-way communication;

a printing data generation function for generating printing data to be printed by the printer based on the status information data acquired by the status information acquisition function on the host side when the output initiation instruction is recognized by the output initiation instruction monitor function; and

a printing data output function for outputting to the printer through the two-way communication the printing data generated by the printing data generation function.

2. The medium according to Claim 1, characterized in that the printing data generated by the printing data generation function is dot image data.

A31 3. The medium according to Claims 1 or 2, characterized by:
it constituting part of the status information data in the printer whether the output initiation instruction exists or not;
and

the output initiation instruction monitor function monitoring whether the output initiation instruction is contained in the status information data acquired by the status information acquisition function on the host side.

4. The medium according to Claims 1 or 2, characterized by:
the output initiation instruction being a trigger transmitted from the printer through the two-way communication;
and

the output initiation instruction monitor function judging whether the trigger is received.

5. The medium according to any of Claims 1 - 4, characterized by:

the status information acquisition function analyzing the status of the printer based on the acquired status information

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data; and

the status information acquisition function warning a user on the host computer if the printer can perform no printing.

6. The medium according to any of Claims 1 - 5, characterized by the status information acquisition function acquiring the communication mode as the status information data when two-way communication is held with the printer.

7. The medium according to any of Claims 1 - 6, characterized by the printing data generation function generating from a default file the form of the printing images to be printed by the printer, then generating the character string image corresponding to the status based on the status information data, and generating the printing image by superposing them together.

8. A printer for holding two-way communication with a host computer and printing status information about the printer, the printer being characterized by comprising:

an output initiation instruction unit for instructing the output initiation of the status information;

a status information acquisition unit on the printer's side for acquiring status information data on the printer;

a status information output unit for outputting through

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the two-way communication the status information data acquired by the status information acquisition unit on the printer's side, and causing the host computer to generate printing data for the printer to print the status information; and

a printing unit for receiving the printing data from the host computer through the two-way communication and performing predetermined printing based on the received data.

9. The printer according to Claim 8, characterized in that the printing data received by the printing unit is dot image data.

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10. The printer according to Claims 8 or 9, characterized by: the status information acquisition unit including a status information data storage part for storing status information data, and writing the output initiation instruction as part of the status information data in accordance with the output initiation instruction of the output initiation instruction unit; and

the status information output unit outputting through the two-way communication the status information data stored in the status information data storage part.

11. The printer according to Claims 8 or 9, characterized by: the output initiation instruction unit outputting a

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trigger as the output initiation instruction through the two-way communication; and

the status information output unit outputting the status information data acquired by the status information acquisition unit after the trigger is outputted.

12. The printer according to any of Claims 8 - 11, characterized by the output initiation instruction unit including a predetermined instruction button, multiple operation of which gives the output initiation instruction.

13. The printer according to any of Claims 8 - 12, characterized by:

the status information acquisition unit acquiring fixed status information only when the printer is booted; and

the status information acquisition unit acquiring sequentially updated status information when the status is updated.

14. A printing controller for causing a printer connected for two-way communication to print status information on the printer, the printing controller being characterized by comprising:

an output initiation instruction monitor unit for monitoring the output initiation instruction for the status

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a status information acquisition unit on the host side for acquiring status information data from the printer through the two-way communication;

a printing data generation unit for generating printing data to be printed by the printer based on the status information data acquired by the status information acquisition unit on the host side when the output initiation instruction monitor unit recognizes the output initiation instruction; and

a printing data output unit for outputting to the printer through the two-way communication the printing data generated by the printing data generation unit.

15. The printing controller according to Claim 14, characterized in that the printing data generated by the printing data generation unit is dot image data.

A33>16. The printing controller according to Claims 14 or 15, characterized by:

it constituting part of the status information data in the printer whether the output initiation instruction exists or not; and

the output initiation instruction monitor unit monitoring

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whether the output initiation instruction is contained in the status information data acquired by the status information acquisition unit on the host side.

17. The printing controller according to Claims 14 or 15, characterized by:

the output initiation instruction being a trigger transmitted from the printer through the two-way communication; and

the output initiation instruction monitor unit judging whether the trigger is received.

18. The printing controller according to any of Claims 14 - 17, characterized by:

the status information acquisition unit analyzing the status of the printer based on the acquired status information data; and

the status information acquisition unit warning a user if the printer can perform no printing.

19. The printing controller according to any of Claims 14 - 18, characterized by the status information acquisition unit acquiring the communication mode as the status information data when two-way communication is held with the printer.

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20. The printing controller according to any of Claims 14 - 19, characterized by the printing data generation unit generating from a default file the form of the printing images to be printed by the printer, then generating the character string image corresponding to the status based on the status information data, and generating the printing image by superposing them together.

21. A status information printing method for causing a printer to print status information under the control of a host computer, the printer and the host computer being connected for two-way communication, the method being characterized by comprising:

an output initiation instruction monitor step for monitoring the output initiation instruction for the status information that the printer outputs through the two-way communication;

a status information acquisition step on the host side for acquiring status information data from the printer through the two-way communication;

a printing data generation step for generating printing data to be printed by the printer based on the status information data acquired in the status information acquisition step on the host side when the output initiation instruction is recognized

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in the output initiation instruction monitor step; and
a printing data output step for outputting to the printer
through the two-way communication the printing data generated
in the printing data generation step.

22. The status information printing method according to Claim
21, characterized in that the printing data generated in the
printing data generation step is dot image data.

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23. The status information printing method according to
Claims 21 or 22, characterized by:
it constituting part of the status information data in the
printer whether the output initiation instruction exists or not;
and

the output initiation instruction monitor step monitoring
whether the output initiation instruction is contained in the
status information data acquired in the status information
acquisition step on the host side.

24. The status information printing method according to
Claims 21 or 22, characterized by:

the output initiation instruction being a trigger
transmitted from the printer through the two-way communication;
and

the output initiation instruction monitor step judging whether the trigger is received.

25. The status information printing method according to any of Claims 21 - 24, characterized by:

the status information acquisition step analyzing the status of the printer based on the acquired status information data; and

the status information acquisition step warning a user if the printer can perform no printing.

26. The status information printing method according to any of Claims 21 - 25, characterized by the status information acquisition step acquiring the communication mode as the status information data when two-way communication is held with the printer.

27. The status information printing method according to any of Claims 21 - 26, characterized by the printing data generation step generating from a default file the form of the printing images to be printed by the printer, then generating the character string image corresponding to the status based on the status information data, and generating the printing image by superposing them together.

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28. A status information printing system consisting of a host computer and a printer that are connected for two-way communication via a predetermined data transfer line, the system being characterized by:

the printer being able to output status information data through the two-way communication to the host computer in accordance with a status information output initiation instruction, and perform predetermined printing based on printing data outputted by the host computer; and

the host computer acquiring the status information data outputted from the printer through the two-way communication, generating predetermined printing data based on the status information data, and outputting the printing data to the printer.

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